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SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: Schering Corporation
(ii) TITLE OF INVENTION: Thioredoxin/Heterologous Protein
Bacterial Expression System

(iii) NUMBER OF SEQUENCES: 14

(iv) CORRESPONDENCE ADDRESS:

- (A) ADDRESSEE: Schering-Plough Corporation
(B) STREET: 2000 Galloping Hill Road
(C) CITY: Kenilworth
(D) STATE: New Jersey
(E) COUNTRY: U.S.A.
(F) ZIP : 07033-0530

(v) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: diskette
(B) COMPUTER: Apple Macintosh
(C) OPERATING SYSTEM: Macintosh 7.5.3
(D) SOFTWARE: Microsoft Word 5.1a

(vi) CURRENT APPLICATION DATA:

- (A) APPLICATION NUMBER:
(B) FILING DATE:

(vii) PRIOR APPLICATION DATA

- (A) APPLICATION NUMBER: US 60/011,606
(B) FILING DATE: 30-APR-1996

(viii) ATTORNEY/AGENT INFORMATION:

- (A) NAME: Thampoe, Immac J..
(B) REGISTRATION NUMBER: 36,322
(C) REFERENCE DOCKET NUMBER: JB0600Q

(2) INFORMATION FOR SEQ ID NO:1

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

SUB
CA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1

CCTGTGGAGT TACATATGAG CGATAAAATT 30

(2) INFORMATION FOR SEQ ID NO:2

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 47 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

GCACCCAACA TGCAAGGATC CTTACGCCAG ATTAGCATCG AGGAACT

(2) INFORMATION FOR SEQ ID NO:3

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 336 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3

ATGAGCGATA AAATTATTCA CCTGACTGAC GACAGTTTG ACACGGATGT 50
ACTCAAAGCG GACGGGGCGA TCCTCGTCGA TTTCTGGCA GAGTGGTGCG 100
GTCCGTGCAA AATGATCGCC CCGATTCTGG ATGAAATCGC TGACGAATAT 150
CAGGGCAAAC TGACCGTTGC AAAACTGAAC ATCGATCAA ACCCTGGCAC 200
TGCGCCGAAA TATGGCATCC GTGGTATCCC GACTCTGCTG CTGTTCAAAA 250
ACGGTGAAGT GGCGGCAACC AAAGTGGGTG CACTGTCTAA AGGTCAGTTG 300
AAAGAGTTCC TCGATGCTAA TCTGGCGTAA GGATCC

(2) INFORMATION FOR SEQ ID NO:4

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 336 bases pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4

ATGAGCGATA AAATTATTCA CCTGACTGAC GACAGTTTG ACACGGATGT 50
ACTCAAAGCG GACGGGGCGA TCCTCGTCGA TTTCTGGGCA GAGTGGTGCG 100
GTCCTGCAA AATGATCGCC CCGATTCTGG ATGAAATCGC TGACGAATAT 150
CAGGGCAAAC TGACCGTTGC AAAACTGAAC ATCGATCAAA ACCCTGGCAC 200
TGCGCCGAAA TATGGCATCC GTGGTATCCC GACTCTGCTG CTGTTCAAAA 250
ACGGTGAAGT GGCGGCAACC AAAGTGGGTG CACTGTCTAA AGGTCAGTTG 300
AAAGAGTTCC TCGAGGCTAA TCTGGCGTAA GGATCC

(2) INFORMATION FOR SEQ ID NO:5

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 81 bases pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5

Eub
GAT AAT ATT CTG GCT GGT TCT GGT TCT GGT GAT GAC GAT GAC AAG 45
Asp Asn Asn Leu Ala Gly Ser Gly Ser Gly Asp Asp Asp Asp Lys
1 5 10 15

GGT CCT GTT CCG CCG TCT ACC GCT CTG CGT GAG CTC
Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Glu Leu
20 25

(2) INFORMATION FOR SEQ ID NO:6

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6

Asp Asn Asn Leu Ala Gly Ser Gly Ser Gly Asp Asp Asp Asp Lys
1 5 10 15
Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Glu Leu
20 25

(2) INFORMATION FOR SEQ ID NO:7

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 52 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7

GAAGGGAGGCT GATTAAATGG GTCCGGTTCC GCCGTCTACC GCTCTGGAGC 50

TC

(2) INFORMATION FOR SEQ ID NO:8

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8

AAGGAGGCTG ATTAAATG

(2) INFORMATION FOR SEQ ID NO:9

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9

AAGGAGGCTG ATTAAATG

(2) INFORMATION FOR SEQ ID NO:10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION SEQ ID NO:10

AAGGAGGTTC AATG

(2) INFORMATION FOR SEQ ID NO:11

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION SEQ ID NO:11:

Leu Asp Ala Asn Leu Ala
1 5

(2) INFORMATION FOR SEQ ID NO:12

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION SEQ ID NO:12

CTC GAT GCT AAT CTG GCG TAA
Leu Asp Ala Asn Leu Ala
1 5

(2) INFORMATION FOR SEQ ID NO:13

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION SEQ ID NO:13

CTC	GAG	GCT	AAT	CTG	GCG	TAA
Leu	Glu	Ala	Asn	Leu	Ala	
1				5		

(2) INFORMATION FOR SEQ ID NO:14

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION SEQ ID NO:14

Leu	Glu	Ala	Asn	Leu	Ala
1				5	